



**NOAA
FISHERIES**

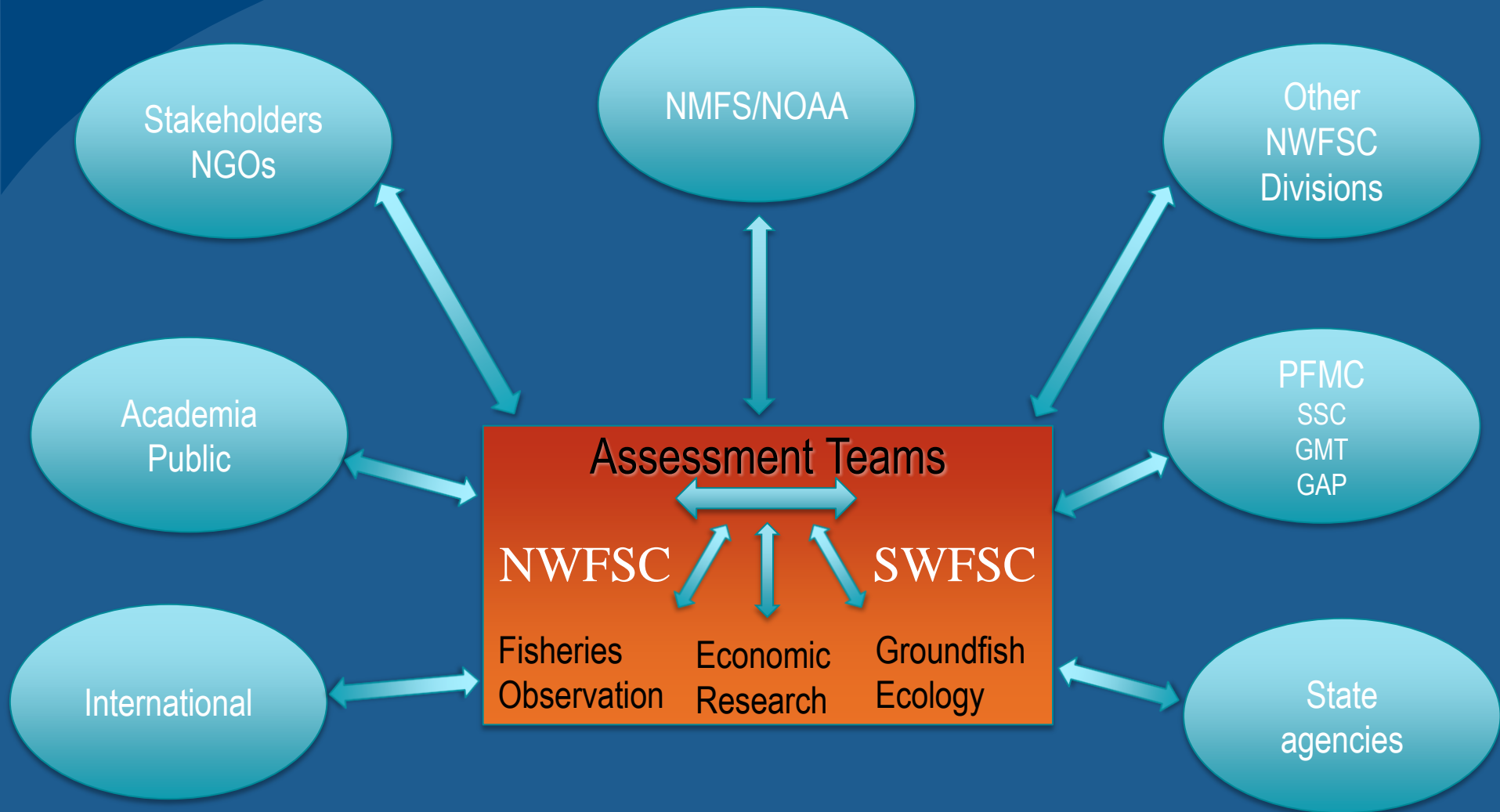
**NW Fisheries
Science Center**

Communication

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Population Ecology Program

Communication



G.1: Communication with Data Collection Programs

- Are assessment needs guiding research goals?
- Have improved data been a result?



Avenues of communication

- Internal meetings and discussions
- PFMCI and International Hake Agreement processes
- Interactions with States
- Inter-division & inter-institution discussions
- Collaboration & interaction with academia
- NOAA and NMFS working groups
- Documents and reports



Internal discussions

- A high level of communication and collaboration within and between PEP and GAT groups
- Annual discussions with survey teams and observer programs to determine sampling protocols and needs

PEP, GAT, NWFSC, SWFSC



Council and Hake Agreement

- STAR panels
- Council meetings
- SSC, GMT, GAP
- Hake SRG
- JMC meeting
- JTC meetings



PEP, GAT, NWFSC, SWFSC, Stakeholders, PFMC, NMFS, States, International

Interaction with States

- Contact with states through PFMC
- Involvement with data collection and analysis
 - Discussions about port sampling
 - Catch reconstructions
- PacFIN, RecFIN

PEP, GAT, NWFSC, SWFSC, Stakeholders, PFMC, NMFS, States



Other

- Inter-division meetings and discussions
- Inter-institution meetings & discussions
- National working groups
- Interaction with academia
 - Research
 - Local meetings and seminars
 - Student involvement
- Pre-assessment meetings
- Communication with stakeholders

PEP, GAT, NWFSC, SWFSC, Stakeholders, PFMC, NMFS, States, Academia



Documents

- Stock assessment documents contain a standardized Executive Summary
- A Research Recommendations section to highlight and prioritize research

Research and data needs

There are many areas of research that could be improved to benefit the understanding and assessment of rougheye and blackspotted rockfishes. Below, we specifically identify five topics that we believe are most important.

- **Historical landings and discards:** The historical landings and discards are uncertain for rougheye rockfish and improvements would increase the certainty that fishing removals are applied appropriately. Because landings are assumed to be known exactly in the assessment model, uncertainty in the predictions does not include uncertainty in the landings. A thorough look at historical landings, species compositions, and discarding practices would reduce the potential uncertainty that is not entirely accounted for.
- **Natural mortality:** Uncertainty in natural mortality translates into uncertain estimates of status

ALL



Improvements to data

- Prioritized collection of biological information from surveys, observers, & port samplers
 - Lengths, ages, maturity, genetics
- Historical catch time series for each state
- Improving databases, data processes, and data availability
- An emergency survey for hake in 2012
- Collaborating with RecFIN to improve recreational data



G.2: Communicating assessment results

- Are assessment process and results adequately communicated to
 - Fisheries managers
 - Scientific community
 - Stakeholders/NGOs/Public



Avenues of communication

- Pre-assessment meetings
- Review panels
- Council meetings
- Local talks & seminars
- Regional, national, & international meetings
- SIS, public portals, FSSI
- Documents and reports



PFMC process

- STAR panels
- Council meetings
 - Evening sessions
 - Presentations to
 - Council
 - SSC
 - GMT & GAP



PEP, GAT, NWFSC, SWFSC, Stakeholders, PFMC, NMFS, States



International Pacific Hake Agreement

- JTC meetings (2)
- SRG meeting
- JMC meetings
- Personal Interactions
 - Phone calls, opportunistic meetings



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Lauren Ackein, ASHOP



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Talks, Seminars, Meetings

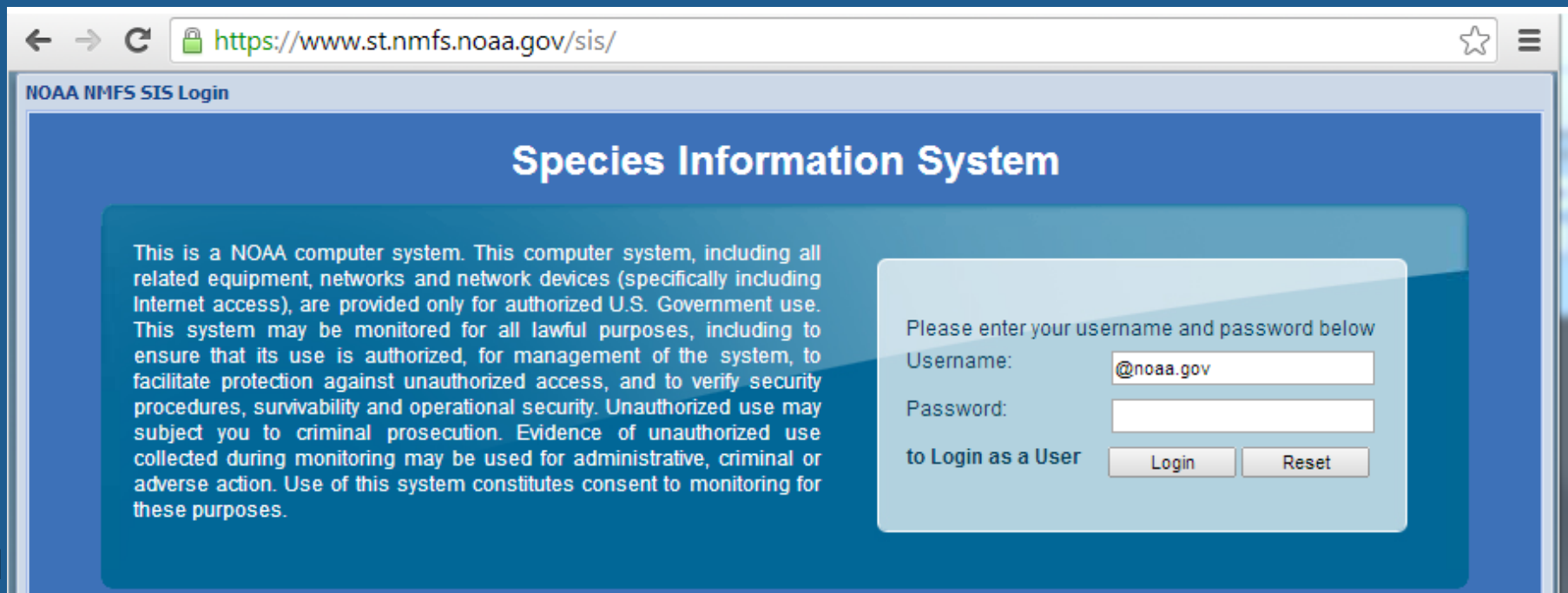
- Pre-assessment meetings
- SAFS seminar and Think Tank
- SS workshops
- Survey Captains meeting
- AFS, NSAW, WCSAM, Western Groundfish, ...

PEP, GAT, NWFSC, SWFSC, Stakeholders, NMFS, States, International, Academia



Species Information System (SIS)

- Stores meta data for assessments
- Linked to status determination to report to OMB and Congress
- A public portal is available for access to some data



The screenshot shows a web browser window with the address bar displaying <https://www.st.nmfs.noaa.gov/sis/>. The page title is "NOAA NMFS SIS Login". The main heading is "Species Information System". On the left, there is a disclaimer: "This is a NOAA computer system. This computer system, including all related equipment, networks and network devices (specifically including Internet access), are provided only for authorized U.S. Government use. This system may be monitored for all lawful purposes, including to ensure that its use is authorized, for management of the system, to facilitate protection against unauthorized access, and to verify security procedures, survivability and operational security. Unauthorized use may subject you to criminal prosecution. Evidence of unauthorized use collected during monitoring may be used for administrative, criminal or adverse action. Use of this system constitutes consent to monitoring for these purposes." On the right, there is a login form with the prompt "Please enter your username and password below". It includes fields for "Username:" (containing "@noaa.gov") and "Password:". Below the password field is a link "to Login as a User". At the bottom of the form are two buttons: "Login" and "Reset".



SIS screen shot

Assessment Data

Assessment Time Series

Assessment - Survey

Timeseries of 2014.3 Assessment of
Pacific hake - Pacific Coast
Note: The selected entity is Pacific hake - Pacific Coast

Export Data

Delete Data

[Visible Columns](#)

Category	Year	Spawners	Recruitment	Fmort	Catch
Primary		Y	Y	Y	Y
Type		Female_Mature	Age	1-SPR	Total Catch
Source		Model	Model	Model	Fishery
Basis		Biomass-mt	Numbers	Rate	Biomass-mt
Range		Mature	Age_0	Rate	All - U.S. and Canadian
Statistic		MCMC	MCMC	MCMC	Externally Calculated
Scale		1000000	1000000000	1	1000
	1966	1.04618	1.42631	0.26946	137700
	1967	0.9672	3.47022	0.38588	214370
	1968	0.89899	2.00329	0.28525	122180
	1969	0.96216	0.81267	0.36971	180130
	1970	1.0313	7.52898	0.41824	234590
	1971	1.0232	0.74158	0.31431	154620
	1972	1.21753	0.44791	0.24744	117540
	1973	1.38834	4.27964	0.27146	162640
	1974	1.4053	0.37525	0.30741	211260
	1975	1.40487	1.20721	0.27184	221350



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Documents and Reports

- Current versions made available to interested parties
- Archives available
 - PFMC website
 - Internal FRAM network with all files needed to reproduce assessment
 - A move to archive in SIS

All



Document evolution

- TOR for document structure is updated every 2nd year
 - Describes the sections and format
- Standardization of Executive Summary to contain nearly all necessary information for managers
- Template for the entire document
- Assessment files typically included

All

Document evolution: R4SS

- R4SS to create standardized plots that easily recognizable
- Has evolved with needs and feedback

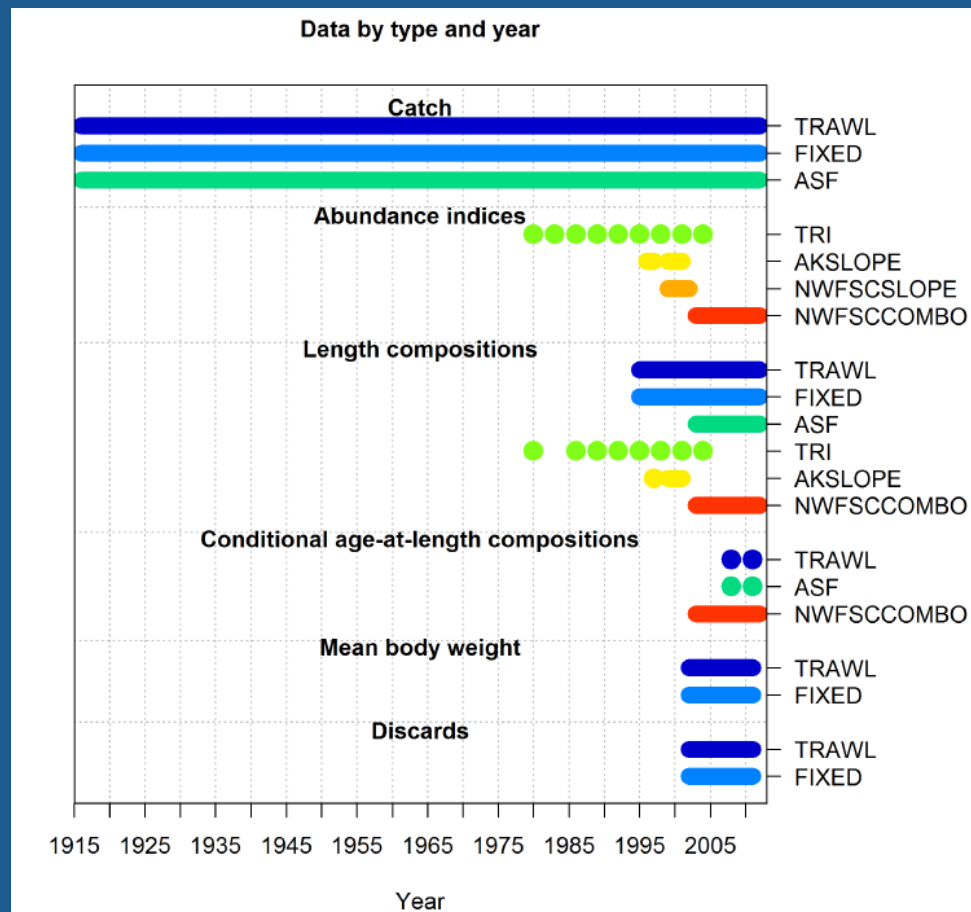


Figure 43: Data sources by type and year that were used in the base model.

Hicks et al 2013. Rougheye assessment



Examples of industry collaboration

- Sablefish assessment surveyed stakeholders
- Hake JTC and industry communicate closely
- Groundfish trawl survey on industry vessels
- Generally an open line of communication with stakeholders

PEP, GAT, Stakeholders



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Summary

- Many avenues of communication are used to improve data collection and report assessment results
 - Council process is a main avenue of communication, but we use other forms as well
- Two-way communication for data collection and assessment methods/results
 - Solicit advice from other groups and incorporate
 - Many avenues of communication for other groups to learn about our data, methods, and results



Strengths

- Open communication with managers and industry
- Provide useful products for our users
- Solicit advice at many different times in the process
- Incorporate the advice and concerns of other parties
- Documents and reports evolve with advice from users



Challenges and solutions

- Travel restrictions (budget and caps)
 - Less presence at meetings
 - Less interaction with industry
 - Difficult to collaborate with Newport
 - **Effect:** reduce travel days
 - **Coping:** online meetings
 - Modest available technology
 - Poor substitute for in-person meetings

